

CONTRIBUTIONS TO THE FLORA OF
WESTERN AUSTRALIA.

No. 2.

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Read 12th December, 1922.

Casuarina microstrobilus, n. sp.

An erect virgately branched shrub of 6 to 10 feet, the branches few and slender, prominently striate.

Internodes numerous, prominently striate or ribbed, whorls 9-merous, the teeth pale yellow, triangular, acute and *closely appressed*.

Male amenta not seen.

Cones pedunculate, depressed-globular, 1.3 cm. diameter and flat-topped. Bracts conspicuous, white, smooth, broadly cuneate with an incurved acuminate apex. Valves prominent, oblong, *obtuse* with a rounded apex; the dorsal protuberance not so long, attached near the middle broadly triquetrous-cuneate.

Achenes small, black with an oblique transparent wing, the style persisting as a median black line.

Shrub 2 to 3 metres high. Branchlets 7-9 cm. long. Cones 1.1 cm. long by 1.3 cm. diameter.

Foot of the western extremity of the Stirling Range in open forests of Wandoo (*Eucalyptus redunca*, var. *elata*) in clay soil. 7th March, 1922. (C.A.G. 1774).

The species has a close affinity to *C. trichodon*, but the cones are not cylindrical, the bracteoles not acute and smaller, and the whorls of the branches are closely appressed.

Casuarina Helmsii, Ewart & Gordon.

This species is described in Proc. Roy. Soc., Victoria, 32 (N.S.), Pt. ii., 1920.

The description given is not very complete. I have to add the following:—

Dioecious. A shrub or small tree of 6 to 20 feet, with erect virgate branches.

Trunk to 6 in. diameter, but short. Branchlets glaucous, covered with a scaly, waxy covering which falls off as the specimen dries. Whorls in the specimens seen constantly 6-merous. Internodes numerous, usually about 17, smooth. The teeth of the whorls are acute, appressed, small, triangular and white.

Male amenta terminating short branchlets, 1.5 cm. long, the sheath-teeth broad, green and more or less spreading, not imbricate.

Cones: Bracts triangular, as long as or slightly shorter than the valves, villous without. Valves cuneate flat, villous on the back with broad triquetrous dorsal protuberances flat-topped and rugose, equal in length to the valves. Achenes red, with an oblique hyaline truncate wing.

Stony gravelly hills near Widgiemooltha, in open forests of *Eucalyptus stricklandi* and *E. torquata*. Fl. m. Sept. (C.A.G. 1770).

Casuarina spinosissima, Gardner, n. sp.

A rigid shrub of 6-10 feet with erect branches. Internodes numerous, not definite, but more than 25, long and glaucous, obscurely striate. Whorls 10-12-merous, the teeth short, erect, broad and scarious.

Male amenta not seen.

Cones rather large, broadly cylindrical, closely sessile, about 2 cm. long and 1.5 cm. broad. Bracts small, broadly oblong, villous without with a small acute narrow triangular apex, not half as long as the valves. Valves 4 mm. long, oblong, obtuse, villous in the lower half, the apex dark-coloured, the dorsal protuberance thick near the base and villous, produced into a long straight glabrous spine of 8 mm. in length.

Achene reddish-brown, the wing hyaline and oblique, with a small terminal black spot (the summit of the style).

Near Carrabin, in yellow sandy soil in thickets of *Hakea multilineata*. (C.A.G. 1273), October, 1922.

The new species belongs to the section *Acanthopitys* in Bentham's Flora, and has a close affinity to *C. horrida*, Herbert, differing in the more conspicuous bracts, more obtuse valves, larger cones and much longer straight spines.

Adenanthos intricata, n. sp.

A bushy shrub of 1 to 3 feet with erect rigid branches and a dark purple bark.

Leaves crowded at the ends of the small branchlets, trifid, densely silver pubescent with longer silky hairs intermixed, the segments terete obtuse, the apical gland only conspicuous in the older leaves.

Flowers small, solitary and terminal, scarlet. Bracts small, imbricate, broadly cuneate, ciliate on the margins. Perianth silky pubescent outside, densely bearded inside at the throat, the lobes narrow-oblong, not bearded behind or below the anthers, the connective-appendage prominent, red. Style long and tapering, with a narrow stigma.

Shrub of .4 to 1 metre high. Leaves 1-1.2 cm. long, the segments 8 mm. long. Perianth 1.4 cm. long, style 2-2.5 cm. long.

Bendering, in arid sandy soil on plains among low shrubs, notably *Grevillea hookeriana*. Fl. m. Oct.-Nov. (C.A.G.)

The species has a close affinity to *G. argyrea*, Diels, but has larger leaves, inconspicuous glands, and the perianth is densely bearded inside at the throat, but not so near the anthers.

The type is No. 1841 of the Forests Department Herbarium.

Grevillea arida, n. sp.

A small shrub of 3-5 feet with widely spreading branches, the bark smooth, almost black in colour.

Leaves linear-oblong, rigidly mucronate, with recurved margins almost to the midrib, glabrous and convex, nerveless above, silky-pubescent underneath.

Pedicels solitary or few clustered together, axillary or terminal, slender and almost filiform. Perianth glabrous outside, bearded within almost to the base with short recurved silky hairs, the tube narrow and attenuate, revolute under the obliquely globular limb. Torus very oblique, gland semiannular, truncate and prominent. Ovary glabrous, stipitate on the upper margin of the torus. Style long and slender, the stigmatic disc large, orbicular and lateral.

Fruit smooth, small and glabrous, acuminate, laterally attached.

Shrub 1-2 metres high. Leaves 1.4-1.8 cm. long and 2 mm. wide. Pedicels 6 mm. long. Perianth 1 cm. long. Style 1.8 cm. long. Fruit 1.2 cm. long, the stipes .5 cm. long.

The new species has a close affinity to *Grevillea acauria*, F.v.M., but the leaves are very different and the flowers larger.

Rocky hills near Widgiemooltha in thickets of *Casuarina Helmsii*. Fl. m. September.

The type is No. 1772 of the Forests Department Herbarium.

Acacia Pelloiae, n. sp.

A small rigid shrub of 3 feet with erect branches sparingly pubescent.

Leaves bipinnate; pinnae 2 to 3 pairs, the common rhachis angular with conspicuous glands just below each pair of pinnae, decurrent on the branches giving them a striate appearance, the secondary rhachises short and terminating in short spines rigid and black. Stipules very short, rigid, persistent and spinescent. Leaflets 2-4 pairs, obliquely-oblong, coriaceous, glandular scabrous, with short hairs, the margins recurved, the nerve near the upper margin.

Peduncles axillary and terminal forming a leafy cylindrical spike, solitary, much shorter than the leaves, bearing a cylindrical spike of yellowish-white flowers, the rhachis pubescent, the flowers 5-merous. Sepals united nearly to the summit, forming a broadly campanulate calyx more or less folded between the lobes and pubescent, the lobes broadly ovate. Petals valvate in the bud, united to about the middle into a 5-lobed corolla minutely silky at the base, the ovate lobes rigid, more or less concave and glabrous, obtuse.

Pod not known.

A shrub of about 1 metre in height. Leaves 2-2.5 cm. long, pinnae .5-1 cm. long; leaflets 4-7 mm. long and 2-3 mm. wide. Peduncle angular, 1 cm. long. Spike 1-1.5 cm. long and .5 cm. diameter. Calyx about 1 mm. long, petals 2 mm. long.

Near the summit of Bluff Knoll, Stirling Range, 3,400 feet altitude, flowering in October.

The species is known only from the fragment collected, consisting of a single twig with flowers. It is named out of compliment to Mrs. Pelloe who has collected many interesting specimens for me.

This new species has affinity to *Acacia Moirii*, E. Pritz, which I have not seen. The flowers are very similar, but the petals are not striate, the leaves and branches are not hirsute and the spikes are cylindrical, not ovate. It has affinity also with *A. strigosa* and *A. Drummondii*.

The type is No. 626a Herbarium (C.A.G.).

Pomaderris Mayeri, n. sp.

An erect shrub of 3 to 6 feet with spreading intricate branches; bark purple-brown, dark and smooth, the branches and leaves closely and shortly tomentose.

Leaves numerous on the short branchlets, obovate or broadly obovate-emarginate, thick, hoary above, silky-pubescent underneath and more or less folded longitudinally.

Cymes small and dense, terminal, exceeding the leaves, the rhachis densely pubescent with reddish hairs. Buds globular or ovoid. Flowers yellowish-white on thick pedicels tapering into the calyx. Bracts ovate, more or less concave, tomentose on the back, brown and scarious. Calyx turbinate, the tube short, silky-tomentose outside, the lobes large and ovate, marked inside with a conspicuous raised midrib. Petals spathulate with an attenuated base shorter than the calyx-lobes. Summit of the ovary convex, densely pilose. Style three-cleft, almost to the base, the branches much recurved. Fruit not seen.

Shrub 1-2 metres high. Leaves 5-7 mm. long and 5 mm. wide. Cymes 1 cm. long. Bracts 1 mm. long. Pedicels 1.5 mm. long. Calyx 3 mm. long, the lobes nearly 2 mm. long. Stamens 1 mm. Style 1 mm. long.

Stony hills near Widgiemooltha, among rocks in sandy loam with *Cassia* and *Dodonaea*. Fl. m. Sept.

The species is named out of compliment to Harold E. Mayer, who has given me every encouragement in my studies.

The new species has affinity to *Pomaderris myrtilloides*, and reposes in some herbaria under that name, notwithstanding the remarkable differences in petals and style.

The type is 1728 of the Forests Department Herbarium.

Darwinia collina, n. sp.

A bushy shrub of 18 ins. to above 2 feet in height. Leaves crowded and imbricate on the branches, ovate-elliptical, quite flat and yellowish-green in colour the margins narrowly scarious, minutely denticulate.

Involucres campanulate, the inner petal-like bracts yellow, entire, broadly elliptical-ovate, the outer ones shorter and green, the lowest passing into the stem leaves. Flowers numerous. Bracteoles about as long as the flowers, oblong-spathulate, obtuse. Calyx-tube 10-ribbed at the base, the ribs most conspicuous in the adnate part, the lobes very small, broadly ovate. Petals white, ovate-deltoid. Staminodia linear-filiform, very small. Style long and more or less flattened, bearded towards the end.

Shrub 40-60 cm. in height. Leaves 1 cm. long and 6 mm. wide. Involucre 2-2.5 cm. long. Calyx-tube 5 mm. long. Petals 3 mm. long. Style 1.3 cm. long.

Near the summit of Bluff Knoll, Stirling Range, Oct. 1922. Flowers m. October. Collector, Mrs. Pelloe.

(The type is No. 627a, Herb. C.A.G.)

The new species has affinity to *Darwinia fimbriata* and *D. macrostegia*, differing from the former in the flat leaves, entire bracts and ribbed calyx, and from the latter in the ovate bracts, smaller ovate flat and ciliate leaves.

Ericaceae.

Ericopsis, gen. nov.

Calyx-tube adnate; lobes 5. Corolla cylindrical, lobes 5, short, erect more or less valvate in the bud. Stamens 5, inserted at the base of the corolla; anthers erect, adnate, one-celled or very imperfectly 2-celled, opening to the base in longitudinal slits. Ovary inferior, 2-celled, with 4 or 5 ovules in each cell ascending from an axile placenta.

The genus consists of a single species. It is closely allied to *Wittsteinia* (a Victorian genus) particularly in the method of dehiscence of the anthers. The genus is typical of the *Ericaceae*, except that the anthers are one-celled, not two-celled as in the other genera of *Ericaceae*.

Ericopsis formosus, n. sp.

Stems prostrate, spreading to a diameter of 10 inches, with short ascending branches of not more than 1½ inches in height.

Leaves crowded and imbricate, erect, minutely scabrous-pubescent, linear-acute, concave, with minutely ciliate margins, pungently acute, and more or less glaucous.

Flowers large for the size of the plant, bright scarlet, erect and solitary, terminating the numerous short branchlets, sessile among the last leaves. Bracts none, or so much like the stem leaves as to be undifferentiated. Calyx-tube cylindrical, 5-furrowed, glabrous, the lobes narrow-linear and closely resembling the leaves, but with purple points. Corolla cylindrical, with short erect acute lobes induplicate valvate in the bud, the tube glabrous outside, and glabrous within except for a dense ring of spreading white woolly hairs near the base. Stamens free, inserted at the base of the corolla, with short slender terete filaments not one third the length of the corolla-tube. Anthers 1-celled, adnate, erect, light yellow.

Style about as long as the corolla, thick, terete, the stigma large and fleshy, capitate, with a convex surface divided by a raised line, glandular-papillose on one side, and glabrous, or minutely pubescent on the other.

Sandy rises on the east bank of the Hotham River, Popanyinning, among low shrubs in open "Wandoo" forest. Fl. m. December. (C.A.G. 1880).

This interesting species introduces a new family into the Western Australian flora. *Ericaceae* has Australian species only in Tasmania and the mountains of Victoria and New South Wales. It is of interest to find this endemic species occurring near the source of the Hotham and Avon Rivers.
